

**IN THE CLAIMS:**

1. (Previously Presented) A measuring method for the organic carbon content characterized in causing a test liquid to flow into the oxidizing process vessel and stopping the irradiation after the UV light has irradiated this test liquid for a predetermined time which time is insufficient to completely oxidize the organic carbon, measuring the base conductivity prior to commencement of the lighting of said UV light and the maximum conductivity after irradiation has stopped in a conductivity detecting means provided in proximity to an outlet of said oxidizing vessel, and finding the organic carbon content of the test liquid from the difference between this base conductivity and maximum conductivity, wherein the rate of flow  $F$  of the test liquid that flows through said oxidizing vessel, the volume  $V$  of the part of the oxidizing vessel irradiated by the UV light upstream from said conductivity detecting means, and the irradiation time of  $T$  of the UV light have the relationship  $F \leq V/T$ .
2. (Original) A measuring method for organic carbon content according to Claim 1 characterized in the test liquid in said oxidizing vessel being exchanged by increasing the rate of flow at which the test liquid passes through the oxidizing vessel after this maximum conductivity is measured by said conductivity detecting means.
3. (Original) A measuring method for organic carbon content according to Claim 1 characterized in using a photo catalyst to promote the UV oxidization of the organic carbon in said test liquid.
4. (Original) A measuring method for organic carbon content according to Claim 1 characterized

in outputting a warning when that the amount of UV light is measured and the amount of the measured light is less than a predetermined value.

5. (Canceled)

6. (Currently Amended) A measuring apparatus for organic carbon content according to Claim [[5]] 8 characterized in having a means that exchanges the test liquid in said oxidizing process vessel by increasing the rate of flow of the test liquid passing through said oxidizing process vessel by a flow rate control means after said maximum conductivity is measured by said conductivity detecting means.

7. (Canceled)

8. (Currently Amended) A measuring apparatus for organic carbon content comprising an [according to Claim 7 characterized in said oxidizing process vessel having an inner tube comprising a material that substantially transmits UV light and an outer tube, and is a two-layer pipe structure in which the test liquid passes through the oxidizing vessel between the outer tube and the inner tube, the inside of the outer tub is covered with photocatalyst, and said UV light source is disposed within said inner tube side.] oxidizing process vessel through which the test liquid passes, a UV light source that irradiates the test liquid in the oxidizing process vessel with UV light, a light control means that turns off the UV light source after being lit for a predetermined time, a conductivity detecting means that is provided in proximity to an outlet of said oxidizing process vessel, and a calculating means that calculates the organic carbon content

in the test liquid from the difference between a base conductivity before commencement of the lighting of said UV light and a maximum conductivity after turning off the UV light source that is measured by this conductivity detecting means, which comprises

a flow rate control means that controls the rate of flow F such that the rate of flow F at which the test liquid passes through said oxidizing process vessel, the volume V of the part of said oxidizing process vessel irradiated by the UV light that is upstream from said conductivity detecting means, and the irradiation time T of the UV light have the relationship  $F \leq V/T$ ; and

said oxidizing process vessel having an inner tube comprising a material that substantially transmits UV light and an outer tube, and is a two-layer pipe structure in which the test liquid passes through the oxidizing vessel between the outer tube and the inner tube, the inside of the outer tube is covered with photocatalyst for promoting the UV oxidization of the organic carbon in the test liquid in said oxidizing process vessel, and said UV light source is disposed within said inner tube side.

9. (Currently Amended) A measuring apparatus for organic carbon content comprising an [according to Claim 7 characterized in said oxidizing process vessel having an outer tube and an inner tube comprising a material that substantially transmits UV light, and is a two-layer pipe structure in which the test liquid passes through the oxidizing vessel between an outer tube and an inner tube, the inside of the outer tube is covered with photocatalyst, and said inner tube is formed from the outer tube of said UV light source.] oxidizing process vessel through which the test liquid passes, a UV light source that irradiates the test liquid in the oxidizing process vessel with UV light, a light control means that turns off the UV light source after being lit for a predetermined time, a conductivity detecting means that is provided in proximity to an outlet of

said oxidizing process vessel, and a calculating means that calculates the organic carbon content in the test liquid from the difference between a base conductivity before commencement of the lighting of said UV light and a maximum conductivity after turning off the UV light source that is measured by this conductivity detecting means, which comprises

a flow rate control means that controls the rate of flow F such that the rate of flow F at which the test liquid passes through said oxidizing process vessel, the volume V of the part of said oxidizing process vessel irradiated by the UV light that is upstream from said conductivity detecting means, and the irradiation time T of the UV light have the relationship  $F \leq V/T$ ; and

said oxidizing process vessel having an outer tube and an inner tube comprising a material that substantially transmits UV light, and is a two-layer pipe structure in which the test liquid passes through the oxidizing vessel between an outer tube and an inner tube, the inside of the outer tube is covered with photocatalyst for promoting the UV oxidization of the organic carbon in the test liquid in said oxidizing process vessel, and said inner tube is formed from the outer tube of said UV light source.

10. (Currently amended) A measuring [method] apparatus for organic carbon content according to Claim [7 characterized in providing] 8 further comprising a photometer that measures the amount of UV light from the UV light source.

11. (Currently amended) A measuring apparatus for organic carbon content according to Claim [5 characterized in having] 8 further comprising a means for confirming the rate of flow F of the test liquid in said oxidizing process vessel.

12. (New) A measuring apparatus for organic carbon content according to Claim 9 further comprising a means that exchanges the test liquid in said oxidizing process vessel by increasing the rate of flow of the test liquid passing through said oxidizing process vessel by a flow rate control means after said maximum conductivity is measured by said conductivity detecting means.

13. (New) A measuring apparatus for organic carbon content according to Claim 9 further comprising a photometer that measures the amount of UV light from the UV light source.

14. (New) A measuring apparatus for organic carbon content according to Claim 9 further comprising a means for confirming the rate of flow of the test liquid in said oxidizing process vessel.

15. (New) A measuring apparatus for organic carbon content comprising an oxidizing process vessel through which the test liquid passes, a UV light source that irradiates the test liquid in the oxidizing process vessel with UV light, a light control means that turns off the UV light source after being lit for a predetermined time, a conductivity detecting means that is provided in proximity to an outlet of said oxidizing process vessel, and a calculating means that calculates the organic carbon content in the test liquid from the difference between a base conductivity before commencement of the lighting of said UV light and a maximum conductivity after turning off the UV light source that is measured by this conductivity detecting means,

wherein said oxidizing process vessel having an inner tube comprising a material that substantially transmits UV light and an outer tube, and is a two-layer pipe structure in which the

test liquid passes through the oxidizing vessel between the outer tube and the inner tube, the inside of the outer tube is covered with photocatalyst for promoting the UV oxidization of the organic carbon in the test liquid said oxidizing process vessel, and said UV light source is disposed within said inner tube side.

16. (New) A measuring apparatus for organic carbon comprising an oxidizing process vessel through which the test liquid passes, a UV light source that irradiates the test liquid in the oxidizing process vessel with UV light, a light control means that turns off the UV light source after being lit for a predetermined time, a conductivity detecting means that is provided in proximity to an outlet of said oxidizing process vessel, and a calculating means that calculates the organic carbon content in the test liquid from the difference between a base conductivity before commencement of the lighting of said UV light and a maximum conductivity after turning off the UV light source that is measured by this conductivity detecting means,

wherein said oxidizing process vessel having an outer tube and an inner tube comprising a material that substantially transmits UV light, and is a two-layer pipe structure in which the test liquid passes through the oxidizing vessel between an outer tube and an inner tube, the inside of the outer tube is covered with photocatalyst for promoting the UV oxidization of the organic carbon in the test liquid in said oxidizing process vessel, and said inner tube is formed from the outer tube of said UV light source.